



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/596,851 06/19/00 DIAMOND

G 99-109

EXAMINER

HM22/1002

RONALD A. KRASNOW, ESQ.
SYMYX TECHNOLOGIES, INC.
3100 CENTRAL EXPRESSWAY
SANTA CLARA CA 95051

GARCIA, M

ART UNIT

PAPER NUMBER

1627

DATE MAILED:

10/02/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/596,851

Applicant(s)
Diamond et al

Examiner
Maurie E. Garcia, Ph. D.

Art Unit
1627



— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ONE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____

2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-69 is/are pending in the application

4a) Of the above, claim(s) _____ is/are withdrawn from consideration

5) ☐ Claim(s) _____ is/are allowed.

6) ☐ Claim(s) _____ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☒ Claims 1-69 are subject to restriction and/or election requirements

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☐ Notice of References Cited (PTO-892)

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

19) ☐ Notice of Informal Patent Application (PTO-152)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

20) ☐ Other:

DETAILED ACTION

Please Note: In an effort to enhance communication with our customers and reduce processing time, Group 1627 is running a Fax Response Pilot for Written Restriction Requirements. A dedicated Fax machine is in place to receive your responses. The Fax number is 703-308-4315. A Fax cover sheet is attached to this Office Action for your convenience. We encourage your participation in this Pilot program. If you have any questions or suggestions please contact Jyothsna Venkat, Supervisory Patent Examiner, at (703) 308-2439. Thank you in advance for allowing us to enhance our customer service. Please limit the use of this dedicated Fax number to responses to Written Restrictions.

Election/Restriction

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-15 and 39, drawn to a method for screening potential catalysts for polymerization performance, classified in class 502, subclasses 60-87, 100+ or class 436, subclass 37 or class 435, DIG 9-13.
 - II. Claims 16-38, 40 and 41 drawn to a method for screening potential catalysts for polymerization activity, classified in class 502, subclasses 60-87, 100+ or class 436, subclass 37 or class 435, DIG 9-13.
 - III. Claims 42-58, drawn to a screening method for high throughput screening of potential catalysts for polymerization activity for at least a second monomer, classified in class 502, subclasses 60-87, 100+ or class 436, subclass 37 or class 435, DIG 9-13.
 - IV. Claims 59-63, drawn to a second method for high throughput screening of potential catalysts for polymerization activity for at least a second monomer, classified in class 502, subclasses 60-87, 100+ or class 436, subclass 37 or class 435, DIG 9-13.
 - V. Claims 64-66, drawn to a catalyst library, classified in class 435, DIG 29-33 or any of class 502, depending on catalyst structure.
 - VI. Claims 67-69, drawn to a method for producing a benchmark library for the polymerization of olefins, classified in class 435, DIG 46 or any of class 502, depending on catalyst structure.

2. The inventions are distinct, each from the other because of the following reasons:

3. Groups I-IV and VI are different methods. The methods are different because they use different steps and/or require different reagents and/or will produce different products and/or results. They therefore have different issues regarding patentability and enablement and represent patentably distinct subject matter. In the instant case, each of the methods comprises different steps. The methods also either use different reagents or have a different end result. This is elaborated upon below.

4. Group I is different from Groups II and III because Group I uses “a potential catalyst” (emphasis added), while Groups II and III use “an array of at least 8 potential polymerization catalysts”. Groups II and III also require concurrent reaction, which is not required by Group I. Group II and II are different from each other because Group III does not require determining a “predictor for the polymerization activity”. This is another reason why Group III is different from Group I as well.

5. Group IV is different from any of Groups I-III or VI because its steps and reagents are completely different. The method calls for a “plurality of catalysts” and an “array of portions of a first monomer” and a particular sampling rate. None of these limitations are found in the methods of Groups I-III. Although a “plurality of catalysts” is recited in the method of Group VI, this method has completely different steps than the method of Group IV and has a different end result (screening vs. producing a library).

6. Group VI is different from any of Groups I-III or IV because its steps and reagents are completely different. Most importantly, the end result of this method is different. The method of Group VI is a method of making a library, while the method of Groups I-III or IV are screening methods.

7. Group V and Group VI are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the library of Group V could be made utilizing a computer modeling study.

8. There does not appear to be a relationship between the library of Group V and the methods of Groups I-IV. The methods of Groups I-IV do not appear to make or use a library as defined in the claims of Group V. However, if these inventions are deemed to be related as process of making and product made, then see paragraph 7 above. If these inventions are deemed to be related as product and process of use, the following should be noted. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant

case, the library of Group V could be used in a materially different process of using the product, for example, as a starting material for the creation of further libraries.

9. These inventions have acquired a separate status in the art as shown by their different classification and/or divergent subject matter. Please note that even though some of these groups could be classified in the same class or subclass, this has no effect on the non-patent literature search. The different methods and the product would require completely different searches in these databases, and there is no expectation that the searches would be coextensive. Therefore, this does create an undue search burden, and restriction for examination purposes as indicated is proper.

10. This application contains claims directed to patentably distinct species of the claimed invention for **Groups I - V**. Election is required as follows.

11. If applicant elects the invention of **Group I**, applicant is required to elect from the following patentably distinct species. Election from each species is required. Claims 1, 4, 11 and 13 are generic.

Species of “using determination as a predictor”

- | | |
|---|--------------------|
| A. Copolymerizing first and second monomers | claims 2, 3 and 14 |
| B. Polymerizing second monomer | claim 5 |

Species of “determining polymerization performance”

- | | |
|-----------------------------------|-----------------|
| A. Molecular weight | claim 6 |
| B. Concentration | claim 7 |
| C. Polydispersity | claim 8 |
| D. High throughput chromatography | claims 9 and 10 |

Species of monomer (claims 12, 15 and 39)

A specific structure for the first monomer must be elected.

The species are distinct, each from the other, because their structures and modes of action are different. They would also differ in their reactivity and the starting materials from which they are made. Therefore, the groups have different issues regarding patentability and represent patentably distinct subject matter.

12. If applicant elects the invention of Group II, applicant is required to elect from the following patentably distinct species. Election from each species is required. Claims 16, 19, 24, 25, 28, 33 and 41 are generic.

Species of "method further comprising"

- | | |
|---|------------------|
| A. Copolymerizing first and second monomers | claims 17 and 18 |
| B. Polymerizing second monomer | claims 20 and 21 |
| C. Polymerizing a second monomer with a third monomer | claims 34-36 |

Species of "dispensing"

- | | |
|-----------|----------|
| A. Liquid | claim 26 |
| B. Gas | claim 27 |

Species of "determining polymerization performance"

- | | |
|--|----------------------|
| A. Product (polymer sample) | claims 22, 23 and 29 |
| *** Also elect a single property from claim 29 | |
| B. Reaction mixture | claim 30 |
| *** Also elect a single property from claim 30 | |

Species of monomer (claims 37, 38 and 40)

A specific structure for the first monomer must be elected.

The species are distinct, each from the other, because their structures and modes of action are different. They would also differ in their reactivity and the starting materials from which they are made. Therefore, the groups have different issues regarding patentability and represent patentably distinct subject matter.

13. If applicant elects the invention of Group III, applicant is required to elect from the following patentably distinct species. Election from each species is required. Claims 42 and 43 are generic.

Species of “determining polymerization performance”

- | | |
|-----------------------------------|------------------|
| A. Concentration | claim 45 |
| B. Polydispersity | claim 46 |
| C. High throughput chromatography | claims 47 and 48 |

Species of “determining a property”

- | | |
|--|--------------|
| A. Product (polymer sample) | claims 44-49 |
| *** Also elect a single property from claim 49 | |
| B. Reaction mixture | claim 50 |
| *** Also elect a single property from claim 50 | |
| C. Polymerizing a second monomer
with a third monomer | claims 53-55 |

Species of monomer (claims 56-58)

A specific structure for the first monomer must be elected.

The species are distinct, each from the other, because their structures and modes of action are different. They would also differ in their reactivity and the starting materials from which they are made. Therefore, the groups have different issues regarding patentability and represent patentably distinct subject matter.

14. If applicant elects the invention of Group IV, applicant is required to elect from the following patentably distinct species. Claims 59-63 are generic.

Species of “determining a property” (e.g. claim 61)

- A. Polymer properties
- B. Polymerization mixture properties

Species of monomer

A specific structure for the first monomer must be elected.

The species are distinct, each from the other, because their structures and modes of action are different. They would also differ in their reactivity and the starting materials from which they are made. Therefore, the groups have different issues regarding patentability and represent patentably distinct subject matter.

15. If applicant elects the invention of Group V, applicant is required to elect from the following patentably distinct species. Claims 64-66 are generic.

Species of library

Applicant is required to elect, for purposes of search, a *specific* core compound of the library. The election should result in a distinct core structure that is common to all of the library members.

Species of "benchmark quality"

Applicant is required to elect, for purposes of search, a single "benchmark quality" from those set forth in claim 66.

The species are distinct, each from the other, because their structures and modes of action are different. They would also differ in their reactivity and the starting materials from which they are made. Therefore, the groups have different issues regarding patentability and represent patentably distinct subject matter.

16. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

17. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and *a listing of all claims readable thereon*, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

18. Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include

all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

19. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

20. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143). Because the above restriction/election requirement is complex, a telephone call to applicants to request an oral election was not made. See MPEP § 812.01.

21. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

22. Applicant is also reminded that a 1 - month (not less than 30 days) shortened statutory period will be set for response when a written requirement is made without an action on the merits. This period may be extended under the provisions of 37 CFR 1.136(a). Such action will not be an "action on the merits" for purposes of the second action final program, see MPEP 809.02(a).

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maurie E. Garcia, Ph.D. whose telephone number is (703) 308-0065. The examiner can normally be reached on Monday-Thursday from 8:30 to 6:00 and alternate Fridays.

24. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jyothsna Venkat, can be reached on (703) 308-2439. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4242. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

Maurie E. Garcia, Ph.D.
September 25, 2001



MAURIE E. GARCIA, Ph.D.
PATENT EXAMINER



RESTRICTION ELECTION FACSIMILE TRANSMISSION

DATE:

FROM/ATTORNEY:

FIRM:

PAGES, INCLUDING COVERSHEET:

PHONE NUMBER:

TO EXAMINER: Maurie E. Garcia, Ph.D.

ART UNIT: 1627

SERIAL NUMBER:

FAX/TELECOPIER NUMBER: (703) 308-4315

**PLEASE NOTE: THIS FACSIMILE NUMBER IS TO BE USED ONLY
FOR RESPONSES TO RESTRICTIONS.**

COMMENTS: _____

IF YOU HAVE NOT RECEIVED ALL THE PAGES OF THIS TRANSMISSION, PLEASE CONTACT THE ATTORNEY AT THE TELEPHONE NUMBER LISTED ABOVE.

IN COMPLIANCE WITH 1096 OG 30, THE FILING DATE ACCORDED EACH OFFICIAL FAX TRANSMISSION WILL BE DETERMINED BY THE FAX MACHINE DATE STAMP FOUND ON THE LAST PAGE OF THE TRANSMISSION, UNLESS THAT DATE IS A SATURDAY, SUNDAY, OR FEDERAL HOLIDAY WITHIN THE DISTRICT OF COLUMBIA, IN WHICH CASE THE OFFICIAL DATE OF RECEIPT WILL BE THE NEXT BUSINESS DAY.

THE DOCUMENT(S) ACCOMPANYING THIS FACSIMILE TRANSMISSION CONTAIN(S) INFORMATION FROM THE UNITED STATES PATENT AND TRADEMARK OFFICE WHICH IS CONFIDENTIAL AND/OR LEGALLY PRIVILEGED. THIS INFORMATION IS FOR THE USE OF THE INDIVIDUAL OR FIRM NAMED ON THIS SHEET. IF YOU ARE NOT THE INTENDED RECIPIENT, YOU ARE HEREBY NOTIFIED THAT ANY DISCLOSURE, COPYING, DISTRIBUTION, OR THE TAKING OF ANY ACTION IN RELIANCE ON THE CONTENTS OF THIS INFORMATION IS STRICTLY PROHIBITED. THE DOCUMENTS SHOULD BE RETURNED TO THE PATENT AND TRADEMARK OFFICE IMMEDIATELY. IF THIS FACSIMILE IS RECEIVED IN ERROR, PLEASE NOTIFY THE ATTORNEY LISTED HEREON IMMEDIATELY.